PERSONALISED NUTRITION: A WAY FORWARD FOR PUBLIC HEALTH

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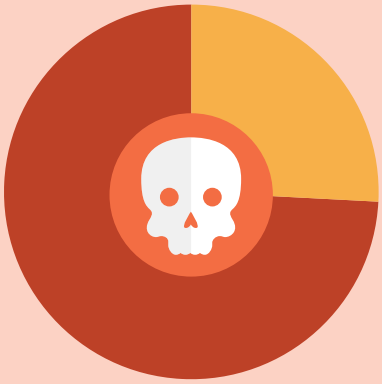
THE STATE OF NON-COMMUNICABLE DISEASES (NCDS) AND PUBLIC HEALTH

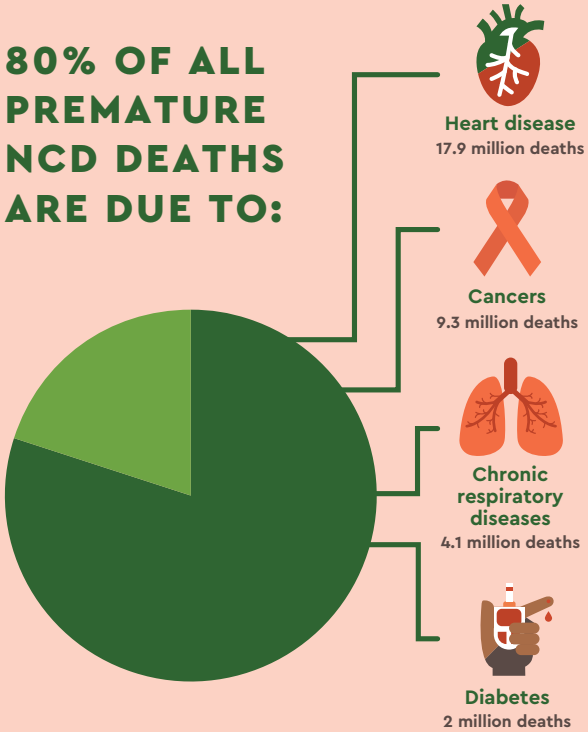
- According to WHO, NCDs kill 41 million people each year, representing 74 % of all deaths globally
- Over 80 % of all premature NCD deaths are caused by cardiovascular diseases (17.9 million deaths), cancers (9.3 million deaths), chronic respiratory diseases (4.1 million deaths), and diabetes (2 million deaths, including kidney diseases deaths caused by diabetes)
- Main risk factors to die from NCDs include unhealthy diets, physical inactivity, harmful use of alcohol and tobacco use
- Obesity is a disease impacting many body parts and leading to a range of NCDs such as diabetes type 2, cardiovascular disease, hypertension, stroke and various forms of cancer and mental health issues
- Worldwide obesity has tripled since 1975, with more than 1.9 billion adults being overweight, out of which 650 million are obese
- Over 340 million children and adolescents aged 5–19 are overweight or obese and prevalence has risen from 4 % in 1975 to over 18 % in 2016

WHO Factsheets Noncommunicable diseases | Obesity

NCDS KILL 41 MILLION PEOPLE EACH YEAR, REPRESENTING 74% OF ALL DEATHS GLOBALLY



80% OF ALL PREMATURE NCD DEATHS ARE DUE TO:



Source: WHO

WHY PERSONALISED NUTRITION?

- Traditional nutritional guidelines are generalized and may not work for everyone.
- Personalised nutrition recognizes individual differences and tailors dietary recommendations.
- It considers factors like genetics, age, weight, and preferences but also lifestyle factors such as physical activity levels and sleep hours as well as cultural influences.
- By combining biological data and technology, personalised nutrition offers effective and practical dietary advice, making it easier to maintain healthy eating habits and ultimately improving public health and well-being.

NOTES & RECOMMENDATIONS FROM THE STANCE4HEALTH PROJECT:

1. Research should aim to improve the accuracy of personalised nutrition interventions:

- Funding agencies and research institutions should allocate resources for long-term studies and the development of personalised nutrition solutions.
- Researchers should focus on understanding the role of the human microbiome and its connection with health outcomes and refine dietary interventions based on scientific findings.

2. Science Communication needs to be implemented by stakeholders:

- Personalised nutrition practitioners and researchers should increase face-to-face instructions and clear communication during interventions.
- Stakeholders should develop effective science communication strategies to engage and educate the public about personalised nutrition.

3. All stakeholders need to work towards project dissemination and long-term impact:

- Funding bodies and project partners should strengthen the dissemination of project results to raise awareness and increase impact.
- Policymakers and public health officials should develop comprehensive strategies for long-term impact and integration into public health initiatives.

4. Facilitators of personalised nutrition interventions need to consider family lifestyle & preferences:

- Personalised nutrition practitioners should educate parents and involve them in decision-making.
- Researchers and practitioners should consider the family's lifestyle and preferences when designing interventions.
- Collaboration between food manufacturers and researchers is essential to provide a diverse range of food products (i.e. flavour, texture) for children's enjoyment and compliance.

5. Aligning standards and methods in personalised nutrition research:

- Stakeholders should collaborate to align standards for analytical methods and microbiome-based biomarkers.
- Research institutions, regulatory bodies, and industry organizations should establish common guidelines for assessing the individual microbiome.

6. Regular monitoring of the gut microbiome for personalised nutrition:

- Researchers and healthcare professionals should incorporate regular monitoring of the gut microbiome in personalised nutrition interventions.
- Institutions should analyse and interpret the collected data to gain valuable insights into individual health and dietary needs.

7. Tailoring personalised nutrition interventions for different demographic scenarios:

- Researchers, healthcare professionals, and policymakers should ensure inclusivity and tailor interventions across different demographics.
- Collaborative efforts should identify barriers and develop strategies to overcome them.

8. Integrating in-person and technological aspects in personalised nutrition solutions:

- Healthcare professionals and researchers should focus on combining in-person consultations with technological solutions to build trust, increase accessibility and enhance user experience.

9. Promoting personalised nutrition requires a multi-stakeholder approach:

- Researchers, policymakers, industry stakeholders, and public health officials should actively engage in collaborative efforts.
- Platforms or initiatives for knowledge sharing and joint decision-making should be established.

- Alignment with national and European guidelines should be pursued through collaborative initiatives.

10. Matching the consumer interest with science-based solutions for the market:

- Industry stakeholders should facilitate the market-readiness of science-based personalised nutrition products and services to match the high consumer interest.
- Consumers retrieve a sense of ownership and responsibility for their own health through education on personalised nutrition, promoting long-term behaviour change and healthier lifestyle choices.

11. Establishing reliable regulatory frameworks for consumer safety and market uptake:

- Regulatory bodies, researchers, and industry representatives should establish clear frameworks for health and lifestyle-related personalised nutrition practices and products.
- Guidelines and standards for personalised nutrition solutions, including data privacy and protection, should be defined.

12. Digital solutions risk leaving marginalised groups behind:

- Policymakers, public health actors, and industry stakeholders should ensure equal access to personalised nutrition solutions.
- Strategies should be implemented to reduce barriers and promote equity in accessing personalised nutrition solutions.

13. Safeguarding data privacy and implementing ethical guidelines in personalised nutrition:

- Researchers, industry stakeholders, and policymakers should collaborate to establish and adhere to ethical guidelines for data usage and privacy protection.
- Privacy, security, data & human integrity, as well as transparency and communication, need to be integrated at the core of every personalised nutrition solution to establish and maintain trust by the consumer.

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